

OJCS-349-74  
25 March 1974

MEMORANDUM FOR: Chief, Plans Staff, DD/M&S


SUBJECT : Conversion to Metric System

REFERENCE : Your Note dated 28 February 1974

1. We have reviewed the Report of the USIB Metric Panel. There are numerous problems that will need to be solved over a long period of time when the go-ahead for a change to the metric system is given. These problems will be found in the computer applications designed for certain analytical and managerial information, in ADP equipment specifications, and in ADP supply specifications.

2. We are certain that all of these problems can be solved, if we put our minds to it. Some of these solutions will come from others in the computer industry who have primary responsibility; for example, equipment manufacturers and supply vendors. Changes in computer information displayed in intelligence and management reports should be initiated by the ADP users. OJCS will provide the technical support required to change computer programs.

3. I have attached copies of memoranda I received from the Operations Division and Applications Division on this subject. I think you will find the additional information which they provide interesting.

  
Chief, Plans Staff, OJCS

STAT

Attachments: a/s

Distribution:

- O + 1 - adse
- 1 - OJCS Registry
- 2 - O/D/OJCS

20 March 1974

MEMORANDUM FOR: Chief, Planning Staff/OJCS

SUBJECT : Impact of Converting to Metric System

### General

This memo is intended to assess the impact of converting to the metric system on Operations Division. Needless to say that at this point very little is known and less has been written on the subject. IBM and other major manufacturers have already begun this conversion and no major problems have been encountered. It is expected this will be an evolutionary process rather than a revolutionary one. This memo attempts to identify possible problem areas and will not address solutions.

### Personnel and Training

Perhaps the hardest part will be to train personnel in the new system where they have become familiar with the old system. This will be most evident in HSB where personnel must deal with drawings and plans which would henceforth be in the metric system. It would also be true in CPB, where for example a programmer's instructions might be "start listing 152 mm from top of page". (instead of 6 inches). These do not appear to be insurmountable obstacles.

### Character Sets

International standards currently require both upper and lower case to represent certain units or symbols of measure. A possible interim solution would be to use combinations of existing characters. Example:  
k = kilo and K = KELVIN

### Data Field Sizes

To OD this does not present any problem except on preprinted forms. This would be a simple problem to solve.

Historical Data

History files in old units of measure may have to be converted in order to make data bases compatible. No major problems are anticipated.

Computer Driven Peripheral Devices

Devices such as plotters and CRT's use some form of measurement to control or position pens or data and for incremental advances. As long as these devices use inches, programmers must use a dual system. It is expected that this problem will exist until these devices are replaced as these devices cannot be changed.

Computer Forms

Continuous form paper is already in a chaotic situation. The 1/2" spacing feed holes is the only standard commonly adhered to. No plan exists to rectify this situation. As we move to the metric system a long period of dual operation is anticipated. Obviously 10 characters per inch and 6 lines per inch will be replaced by metric units of measure and computer forms must be changed accordingly. In any event, this will be an expensive item to convert as it is not expected that all printer devices will change at once.

Other Computer Supplies

It is anticipated that the 1/2" reels of magnetic tape and 7-3/8" by 3-1/2" cards are here to stay, and no changes will be made.



Chief

Support & Services Branch/OD

STAT

6 March 1974

MEMORANDUM FOR: Chief, Plans Staff, OJCS  
SUBJECT : Conversion to Metric System

1. My staff and I have reviewed the metric conversion problem.
2. The AD position is:
  - a. AD endorses the objective as proposed by the DD/M&S Plans Staff.
  - b. Very little work will be required specifically to convert for AD purposes.
  - c. Some customers will have formidable (but feasible) tasks. These customers will be expected to submit requests for the metric modifications and AD will respond within available manpower resources.
  - d. Let us move, ASAP. This is at least 40 years overdue. In each passing year, more software is produced which must be studied and converted later.



Chief  
Applications Division

STAT